

RSNA Public Information Committee Patient-Centered Care Trainee Modular Interactive Learning Set

In order to fulfill ACGME-mandated instruction in patient-centered care, the RSNA Public Information Committee (PIC) has constructed a curriculum of interactive patient-centered care learning modules for educating trainees in Diagnostic Radiology, Radiation Oncology, and Integrated Interventional Radiology residencies.

The learning objectives of this curriculum are to:

- Sensitize radiology trainees to the importance of patient-centered care
- Equip radiology trainees with methods and tools to allow them to provide patient-centered care
- Train the next generation of radiologists as patient-centered radiologists
- Promote a patient-centered culture in radiology departments and practices

The topics in the framework are designed to be reviewed in small groups and can be tailored to individual program environments. Each of the 13 interactive modules includes a set of preparatory tasks and small group activities built from the toolkits on RSNA's Radiology Cares website. For example: review one video, read two articles, perform a specific task related to the topic, and answer three questions with group discussion. The latter work is designed to occur in a classroom environment supervised by the program director or other faculty or resident leaders. Programs are encouraged to create their own learning objectives for the modules that are specific to their own learning environments and expertise. The modules purposefully include content and suggest delivery methods, but we encourage creativity at the program level. One common theme for the curriculum is role-play. Although state-of-the-art communication skills training in medicine involves high-fidelity, experiential simulation-based learning with professional confederates (i.e., actors), most programs do not presently have access to such facilities for the full spectrum of topics involved in patient-centered care in radiology. We therefore anticipate that role-play as suggested in the modular curriculum is an important first step that will help prepare learners for more intensive training as it becomes available at individual sponsor institutions.

The process for creating the curriculum included an extensive review of the Radiology Cares website toolkit materials in 2017. A PIC curriculum task force compiled a list of patient-centered care items in the ACGME common program requirements and coordinated it with program requirements for Diagnostic Radiology, Integrated Interventional Radiology, and Radiation Oncology. The task force drafted a curriculum outline and built the 13 modular components which were then reviewed by the PIC at large and approved by the RSNA Board of Directors.

Phase 1 Pilot Program Distribution (December 2017-March 2018) – The modules were distributed in draft form to a select group of volunteer programs that utilized and formally reviewed the modules

for content and effectiveness using a separate set of instructions and review forms. Using pilot program feedback, the task force modified the modules as necessary.

Phase 2 General Distribution (July 1, 2018) – The curriculum is being made available to all program directors in Diagnostic Radiology, Interventional Radiology, and Radiation Oncology, who are encouraged to use the curriculum components for their individual learning needs as they deem appropriate in order to meet common program requirements of the ACGME and those requirements specific to Radiology RRCs.

Patient-Centered Care in Radiology – Table of Contents
Trainee Modular Interactive Learning Set

There are 13 modules in the total curriculum, with the outline shown below.

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Module 1–The Basics of Patient-Centered Care

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Module 2–Empathy/Cultural Awareness

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SECTION 5: Teamwork

Module 13–Teamwork: Developing a Team Approach to Patient-Centered Radiology

Patient-Centered Care in Radiology – Table of Contents with Program Requirements Trainee Modular Interactive Learning Set – Pilot Program

*There are 13 modules in the total curriculum, with the outline shown below. (Note: Roman numerals in **BOLD** indicate the ACGME common program requirements; Roman numerals after Diagnostic Radiology (DR), Interventional Radiology (IR) and Radiation Oncology (RO) indicate the individual program RRC requirements mapped to the patient-centered care activity).*

SECTION 1: The Basics of Patient-Centered Care

Module 1 – The Basics of Patient-Centered Care **CPR VI.B.4.a)**; DR VI.B.3; DR VI.B.4.a);
IR VI.A.1.a).(4); IR VI.B.4.a)

SECTION 2: Empathy/Cultural Awareness

Module 2 – Empathy/Cultural Awareness DR IV.A.5.e).(2); DR IV.A.5.e).(5); RO IV.A.5.d).(1);
IR IV.A.5.e).(5)

SECTION 3: Communication

Module 3 – Communication: Principles of AIDET DR IV.A.5.e).(4); RO IV.A.5.e).(4); IR IV.A.5.d)

Module 4 – Communication: Communicating the Patient Experience DR IV.A.5.c).(8);
DR IV.A.5.c).(8); DR IV.A.5.d).(1) ; IR IV.A.5.d).(1)

Module 5 – Communication: Diagnostic Testing/Therapeutic Results Sharing DR IV.A.5.d).(6);
DR IV.A.6.f).(2).(e); IR IV.A.5.d).(6)

Module 6 – Communication: Evaluation of Patient-Centeredness of Practice IR IV.A.5.d)

SECTION 4: Safety: Culture of Safety CPR VI.A.1.a).(1)

Module 7 – Safety: Understanding Patient Vulnerabilities DR IV.A.5.e).(3); DR VI.B.4.b);
RO VI.A.1.a).(1); IR IV.A.5.e).(5)

Module 8 – Safety: Radiation Safety DR IV.A.5.f).(4); DR IV.A.5.f).(5); IR IV.A.5.c).(11);
IR IV.A.5.a).(1).(a).vii

Module 9 – Safety: Radiation Exposure Education DR IV.A.5.a).(2).(f)

Module 10 – Safety: Imaging Utilization DR IV.A.5.b).(3); IR IV.A.5.a).(1).(a).(i)

Module 11 – Safety: Contrast Risk Discussions/Consent DR IV.A.5.b).(6); IR IV.A.5.A).(1).(a).(iv)

Module 12 – Safety: Disclosures of Adverse Events DR VI.A.1.a).(4); RO VI.A.1.a).(4); IR VI.B.4.b)

SECTION 5: Teamwork DR IV.A.5.d).(6); DR IV.A.5.f).(5); DR VI.F.; IR VI.E.2

Module 13 – Teamwork: Developing a Team Approach to Patient-Centered Radiology

Patient-Centered Care in Radiology

(Note: Roman numerals in **BOLD** indicate the ACGME common program requirements; Roman numerals after Diagnostic Radiology (**DR**), Interventional Radiology (**IR**) and Radiation Oncology (**RO**) indicate the individual program RRC requirements mapped to the patient-centered care activity).

SECTION 1: The Basics of Patient-Centered Care

Module 1 – The Basics of Patient-Centered Care **CPR VI.B.4.a)**; **DR VI.B.3**; **DR VI.B.4.a)**;
IR VI.A.1.a).(4); **IR VI.B.4.a)**

Pre Team Based Learning:

1. Watch Radiology Cares: Patient Stories video:
<https://www.youtube.com/watch?v=Q-9N8ESkeXw&feature=youtu.be>
2. Read: *Radiographics* article: Invited Commentary: Time to Step Out of the Dark
<http://pubs.rsna.org/doi/10.1148/rg.2015150214>
3. Read: New York Times article: Radiologists are Reducing the Pain of Uncertainty
<https://www.nytimes.com/2014/11/25/health/radiologists-are-reducing-the-pain-of-uncertainty.html?ref=health&r=4>
4. Read: *Radiographics* article: Patient-Centered Radiology
<https://pubs.rsna.org/doi/full/10.1148/rg.2015150110>

During Team Based Learning:

1. Watch Radiology Cares Video: The Untold Future
<https://www.youtube.com/watch?v=IBKQtmw4yMk&feature=youtu.be>
2. Group Questions and Discussion:
 - Which scenario from the Untold Future video best exemplifies your current perception of radiology and why?
 - Have you been a patient or caregiver before? If so, what did you like or not like about your experience?
 - What obstacles to patient-centered care have you experienced?
 - What can you, as a resident, do to change the future of radiology to be more patient focused?
 - When you chose the specialty of radiology, did expectations of patient interaction influence your decision at all? If so, in what way? Has this learning exercise changed your expectations?

SECTION 2: Empathy/Cultural Awareness

Module 2 – Empathy/Cultural Awareness **DR** IV.A.5.e).(2); **DR** IV.A.5.e).(5); **RO** IV.A.5.d).(1);
IR IV.A.5.e).(5)

Pre Team Based Learning:

1. Watch Cleveland Clinic Empathy video: https://www.youtube.com/watch?v=cDDWvj_q-o8
2. Watch Dr. Brené Brown video describing the difference between empathy and sympathy:
<https://www.youtube.com/watch?v=1Evwgu369jw>
3. Read:
 - a. Empathy's Vital Role in Putting Patients First
<http://pubs.rsna.org/doi/full/10.1148/radiol.13122731>
 - b. The Service Encounter in Radiology <http://www.academicradiology.org/article/S1076-6332%2814%2900373-0/abstract?cc=y> (may require subscription to access)
4. Do one implicit bias test (Harvard site) <https://implicit.harvard.edu/implicit/takeatest.html>

During Team Based Learning:

1. Review/watch Cleveland Clinic Empathy video together:
https://www.youtube.com/watch?v=cDDWvj_q-o8
2. Answer questions together:
 - a. Each participant should describe one thing he or she believes each of us can do to increase the **empathy** of radiologists and thus promote our ability to put patients first. Rank the ideas in your group from highest yield potential to lowest.
 - b. Role-play the scenario described in article number 1 above. In teams of four, have one resident be the patient, one the spouse, and one the doctor while the other video records (cellphone) the encounter. Allow ten minutes for the “production,” then review together to share the videos and discuss what worked and what can still be improved upon from the perspective of the patient and family experience.
 - c. Discuss as a group what empathetic actions can be taken to calm an upset, angered, bewildered patient.

SECTION 3: Communication

Module 3 – Communication: Principles of AIDET DR IV.A.5.e).(4); RO IV.A.5.e).(4); IR IV.A.5.d)

Pre Team Based Learning:

1. Review the Studer Group's original AIDET explanation AIDET® in the Medical Practice: More Important Than Ever <https://www.studergroup.com/resources/articles-and-industry-updates/insights/november-2014/aidet-in-the-medical-practice-more-important-than>
2. Review the web article Common Courtesy Lacking Among Doctors-in-Training: http://www.hopkinsmedicine.org/news/media/releases/common_courtesy_lacking_among_doctors_in_training
3. Read: *Radiographics* article: Invited Commentary: Time to Step Out of the Dark <http://pubs.rsna.org/doi/10.1148/rg.2015150214>

During Team Based Learning:

1. Create your own AIDET Card (store on cellphone) and practice on members of your group.
2. As a group, list three reasons it is important for patients and families to understand and be able to identify trainees, students, and attending physicians in care delivery.
3. Discuss scenarios where either the patient's or family members' confusion regarding who is responsible for which role in his or her care might negatively impact the patient experience.

SECTION 3: Communication (cont'd)

Module 4 – Communication: Communicating the Patient Experience **DR IV.A.5.c).(8)**;
DR IV.A.5.c).(8); **DR IV.A.5.d).(1)** ; **IR IV.A.5.d).(1)**

Pre Team Based Learning:

1. Read: Teaching Communication Skills to Radiology Residents
[http://www.cpdjournal.com/article/S0363-0188\(16\)30162-1/fulltext](http://www.cpdjournal.com/article/S0363-0188(16)30162-1/fulltext) *(may require subscription to access)*
2. Read: Coming Out of the Dark: A Curriculum for Teaching and Evaluating Radiology Residents' Communication Skills Through Simulation [http://www.jacr.org/article/S1546-1440\(16\)30946-2/fulltext](http://www.jacr.org/article/S1546-1440(16)30946-2/fulltext)
3. Read: Teaching Interpersonal and Communication Skills
[http://www.academicradiology.org/article/S1076-6332\(12\)00318-2/](http://www.academicradiology.org/article/S1076-6332(12)00318-2/) *(may require subscription to access)*

During Team Based Learning:

1. Divide into groups of no greater than 6 (three teams of two) and take turns explaining to each other 1.) a brain MRI; 2.) a percutaneous image-guided liver biopsy, with one resident being the radiologist and the other the “patient.” If possible, the third team of two should be split and act as the videographer. Take no more than 3 minutes for each explanation, and after all residents have had the opportunity to serve once as a patient, a radiologist, and a videographer, review all videos together, taking notes of what was done well and which parts need refinement. In the final 10 minutes of the session, report your reviews to the class at large.

SECTION 3: Communication (cont'd)

Module 5 – Communication: Diagnostic Testing/Therapeutic Results Sharing DR IV.A.5.d).(6);
DR IV.A.6.f).(2).(e); IR IV.A.5.d).(6)

Pre Team Based Learning:

1. Read: Sick and Scared and Waiting, Waiting, Waiting
<http://www.nytimes.com/2005/08/20/health/sick-and-scared-and-waiting-waiting-waiting.html>
2. Read: Rethinking the Role of the Radiologist: Enhancing Visibility through Both Traditional and Nontraditional Reporting Practices <http://pubs.rsna.org/doi/full/10.1148/rg.352140042>
3. Read: Radiology Reporting: Current Practices and an Introduction to Patient-Centered Opportunities for Improvement <https://www.ajronline.org/doi/10.2214/AJR.17.18721> (*may require subscription to access*)

During Team Based Learning:

1. Create a glossary of commonly used words in radiology reports with explanations given in layman's terms, which could help alleviate patient confusion and anxiety and be used as a resource for either departmental websites or paper materials to distribute to patients in anticipation of their viewing reports on secure patient portals. Divide the teams into subspecialty areas (Neuro, Chest, Breast, Abdominal imaging, etc.) to avoid repetition.
2. As a group, review the glossary and consider how it might be utilized in your department.
3. Role-play delivering difficult news to a patient about findings on an imaging study (see above section).

SECTION 3: Communication (cont'd)

Module 6 – Communication: Evaluation of Patient-Centeredness of Practice IR IV.A.5.d)

Pre Team Based Learning:

1. Read: The Architecture of Smart Surveys: Core Issues in Why and How to Collect Patient and Referring Physician Satisfaction Data [http://www.jacr.org/article/S1546-1440\(08\)00413-4/fulltext](http://www.jacr.org/article/S1546-1440(08)00413-4/fulltext) (may require subscription to access)
2. Read: Survey-based Assessment of Patients' Understanding of Their Own Imaging Examinations [http://www.jacr.org/article/S1546-1440\(15\)00069-1/fulltext](http://www.jacr.org/article/S1546-1440(15)00069-1/fulltext) (may require subscription to access)
3. Review: Massachusetts General Hospital Patient Thank You Card http://www.rsna.org/uploadedFiles/RSNA/Content/Science_and_Education/Radiology_Cares/Gunn_fig03.pdf

During Team Based Learning:

1. Think about what information your practice would like to gather regarding one focused area of patient-centered care. For example, knowledge about what a radiologist is, how/if they are aware or able to determine the radiologist who interpreted their examination, and whether they know how to access the report.
2. Design a survey to provide desired data points in under 5 minutes of patient time.
3. Create your own practice's Patient Thank You card/brief educational materials that might be used as an intervention between surveys to determine success.

SECTION 4: Culture of Safety CPR VI.A.1.a).(1)

Module 7 – Safety: Understanding Patient Vulnerabilities DR IV.A.5.e).(3); DR VI.B.4.b);
RO VI.A.1.a).(1); IR IV.A.5.e).(5)

Pre Team Based learning:

1. Patients' vulnerabilities regarding imaging tests often involve anxiety waiting for results and exposure to physician error.
 - a. Work through the RSNA Professionalism vignette "Communicating Bad News"
http://www.rsna.org/Vignette_12_Question_1_of_4/
 - b. Work through the RSNA Professionalism vignette "Disclosure of Radiological Error"
http://www.rsna.org/Vignette_1_Question_1.aspx
2. Patient portals that allow patients to read their reports may create questions and anxiety.
 - a. Read: How to Read Your Radiology Report
<https://www.radiologyinfo.org/en/info.cfm?pg=article-read-radiology-report>

During Team Based Learning:

1. Role-play in small groups of 4 with one resident being a patient and another a radiologist. First, give the "patient" a difficult diagnosis and discuss (5 minutes role-play, 10 minutes discussion), examples: fetal demise on US, breast mass on mammo requiring biopsy; Second, disclose to "patient's family" a safety sentinel event (5 minutes role-play, 10 minutes discussion); examples: thermal injury that has occurred during MRI, patient falling from fluoro table during transfer to wheelchair or stretcher. How would you address the situation if the patient and family members spoke a different language? Get feedback from others in the group at large.
2. If there is time, consider reviewing as a group the RSNA Professionalism vignette "Communicating Bad News" http://www.rsna.org/Vignette_12_Question_1_of_4/

SECTION 4: Culture of Safety (cont'd)

Module 8 – Safety: Radiation Safety DR IV.A.5.f).(4); DR IV.A.5.f).(5); IR IV.A.5.c).(11);
IR IV.A.5.a).(1).(a).vii

Pre Team Based Learning:

1. Read: Managing Radiation Use in Medical Imaging: A Multifaceted Challenge
<http://pubs.rsna.org/doi/full/10.1148/radiol.10101157>
2. Read: Radiation Dose in X-Ray and CT Exams
<https://www.radiologyinfo.org/en/info.cfm?pg=safety-xray>
3. View the video on CT dose estimates on the *RadiologyInfo.org* website for patients:
<https://www.radiologyinfo.org/en/gallery/index.cfm?video=1086>
4. Read: X-ray, Interventional Radiology and Nuclear Medicine Radiation Safety
<https://www.radiologyinfo.org/en/info.cfm?pg=safety-radiation>
5. Read: CT Safety During Pregnancy <https://www.radiologyinfo.org/en/info.cfm?pg=safety-ct-pregnancy>
6. Take the pledge to image wisely at <http://www.imagewisely.org/Pledge>

Note: the information contained on *RadiologyInfo.org* is updated through annual peer review. You might wish to download a Radiation Dose Chart for patient information: <https://www.acr.org/-/media/ACR/Files/Radiology-Safety/Radiation-Safety/Dose-Reference-Card.pdf?la=en>

During Team Based Learning:

1. Discuss your department's method for evaluation of approximate effective radiation dose estimates for common tests. Is there a website where they are made available at your center?
2. Break into small groups of 4 or less and role-play: answer the "patient's" questions about radiation safety regarding the following clinical scenarios: an adult's abdominal CT scan; a mammogram in a 52 year old woman; a 30 year old pregnant patient with arm x-ray, an abdominal/pelvic CT in a child compared to a >65 year old woman. Specifically try to explain risks in terms of background radiation, and what your department is doing to reduce exposure for each type of exam.

SECTION 4: Culture of Safety (cont'd)

Module 9 – Safety: Radiation Exposure Education DR IV.A.5.a).(2).(f)

Pre Team Based Learning:

1. Review the Image Gently web-based resources at <http://www.pedrad.org>
 - CT
 - Digital radiography
 - Fluoroscopy
 - Nuclear medicine
2. Review the Image Wisely web-based resources at <http://www.imagewisely.org/Imaging-Modalities/Computed-Tomography/Imaging-Physicians>
3. Review the [RadiologyInfo.org Safety Section](#) Articles:
 - a. Radiation Dose in X-Ray and CT Exams
<https://www.radiologyinfo.org/en/info.cfm?pg=safety-xray>
 - b. X-ray Interventional Radiology and Nuclear Medicine Radiation Safety
<https://www.radiologyinfo.org/en/info.cfm?pg=safety-radiation>

During Team Based Learning

1. Read either: Informed Consent for Radiation Risk from CT is Unjustified Based on Current Scientific Evidence <https://doi.org/10.1148/radiol.2015142859>

Or: The Information Imperative: Is it Time for an Informed Consent Process Explaining the Risks of Medical Radiation? <https://doi.org/10.1148/radiol.11110616>
2. Ask each person to discuss which opinion they agree with in the selected article and why.
3. Role-play in small groups of 4 with one resident being a radiologist, one a patient, and others concerned family members. Disclose an error with radiation dose implications to the “patient” (5 minutes role-play, 10 minutes discussion); examples: incomplete anatomic coverage on a CT exam that requires repeat imaging and additional contrast administration, wrong extremity radiographed in a child.
4. Discuss strategies for educating referring physicians about reducing radiation exposure during imaging.

SECTION 4: Culture of Safety (cont'd)

Module 10 – Safety: Imaging Utilization DR IV.A.5.b).(3); IR IV.A.5.a).(1).(a).(i)

Pre Team Based Learning

1. Read: Selecting the Right Test and Relative Radiation Dose as They Relate to Appropriateness Criteria <http://www.imagewisely.org/imaging-modalities/computed-tomography/imaging-physicians/articles/selecting-the-right-test-and-relative-radiation-dose>
2. Read: CT Dose Optimization in Pediatric Radiology: A Multiyear Effort to Preserve the Benefits of Imaging While Reducing the Risks <http://pubs.rsna.org/doi/10.1148/rg.2015140267>
3. Read: Strategies for Managing Imaging Utilization [https://www.jacr.org/article/S1546-1440\(09\)00393-7/fulltext](https://www.jacr.org/article/S1546-1440(09)00393-7/fulltext) (may require subscription to access)

During Team Based Learning

1. Review: Choosing Wisely - American College of Radiology
<http://www.choosingwisely.org/societies/american-college-of-radiology/>
2. Discuss these scenarios (look up references if there is not group consensus)
 - a. Post-menopausal patient with 4cm simple cyst. What f/u recommendation?
 - b. Pre-menopausal patient with 4 cm simple cyst. What f/u recommendation?
 - c. 6 yo with RLQ pain. What is initial test of choice?
 - d. What test would you recommend for a pregnant patient, 2nd trimester, with shortness of breath and +D dimer?

SECTION 4: Culture of Safety (cont'd)

Module 11 – Safety: Contrast Risk Discussions/Consent DR IV.A.5.b).(6); IR IV.A.5.A).(1).(a).(iv)

Pre Team Based Learning:

1. Review your department's contrast media policy pertaining to accelerated preps and concepts of what constitutes risk
2. Read: Residual or Retained Gadolinium: Practical Implications for Radiologists and Our Patients <http://pubs.rsna.org/doi/10.1148/radiol.2015150805>
3. Read: Intravenous Contrast Medium-induced Nephrotoxicity: Is the Medical Risk Really as Great as We Have Come to Believe? <http://pubs.rsna.org/doi/full/10.1148/radiol.10092000>

During Team Based Learning:

1. Watch Contrast Nephropathy: The Biggest Cause of Acute Kidney Injury that Might Not Exist <https://www.youtube.com/watch?v=zUf6H0if55I>
2. Watch video from RSNA 2016: Safety issues with gadolinium MRI contrast <https://www.youtube.com/watch?v=uniejz-Z1fw>

Discussion Questions:

- a. Patient with abdominal pain in ER on dialysis. Would you give IV contrast? What questions might you ask before making this decision?
- b. Pregnant patient with seizure in ER. Would you give Gad for brain MRI? Why or why not?
- c. Patient with shellfish allergy. Would you give iodinated contrast for abdomen CT in setting of acute pain? What would you say to the patient?
- d. Under what conditions might you give gadolinium to a pregnant patient? If you did decide this was indicated, would you obtain “informed consent” or “shared decision making?” What would you discuss with the patient?
- e. Patient says she is allergic to iodine and presents to ER after acute trauma. What questions might you ask this patient? How would you determine whether to give or not give iodinated contrast?

Additional suggestions: If your program has access to a facility that can provide simulation training for contrast reactions, this is strongly encouraged.

SECTION 4: Culture of Safety (cont'd)

Module 12 – Safety: Disclosures of Adverse Events **DR** VI.A.1.a.(4); **RO** VI.A.1.a).(4); **IR** VI.B.4.b)

Pre Team Based Learning:

1. Read: The Disclosure Dilemma – Large-Scale Adverse Events
<http://www.nejm.org/doi/full/10.1056/NEJMhle1003134>
2. Read: Managing an Acute Adverse Event in a Radiology Department
<http://pubs.rsna.org/doi/full/10.1148/rg.285085064>
3. Read: Stepping Out Further from the Shadows: Disclosure of Harmful Radiologic Errors to Patients
<http://pubs.rsna.org/doi/full/10.1148/radiol.11110829>

OPTIONAL READING:

4. Read: To Disclose or Not to Disclose Radiologic Errors: Should “Patient-First” Supersede Radiologist Self-Interest? <http://pubs.rsna.org/doi/full/10.1148/radiol.13130193>
5. Read: Root Cause Analysis: Learning from Adverse Safety Events
<http://pubs.rsna.org/doi/full/10.1148/rg.2015150067>
6. Read: Survey of Radiologists' Knowledge Regarding the Management of Severe Contrast Material-induced Allergic Reactions
<http://pubs.rsna.org/doi/full/10.1148/radiol.2513081651>

During Team Based Learning:

1. Watch the Adverse Event Disclosure video https://www.youtube.com/watch?v=CRHXFh_jV4o
2. Discuss the video and think of situations in radiology and how you would approach them.

SECTION 5: Teamwork DR IV.A.5.d).(6); DR IV.A.5.f).(5); DR VI.F.

Module 13 – Teamwork: Developing a Team Approach to Patient-Centered Radiology

Pre Team Based Learning:

1. Read: The Role of Radiology in the Diagnostic Process: Information, Communication, and Teamwork <http://www.ajronline.org/doi/abs/10.2214/AJR.17.18381> (may require subscription to access)
2. Read: Effective Radiology Teams [http://www.jacr.org/article/S1546-1440\(04\)00328-X/fulltext](http://www.jacr.org/article/S1546-1440(04)00328-X/fulltext) (may require subscription to access)
3. Read: Building a Team for Change in an Academic Radiology Department <http://pubs.rsna.org/doi/full/10.1148/radiol.2322032115>

During Team Based Learning:

1. Define the potential members of the imaging team that should be included in creating a patient-centered radiology service.
2. Discuss potential barriers and strategies to make imaging teams more effective.